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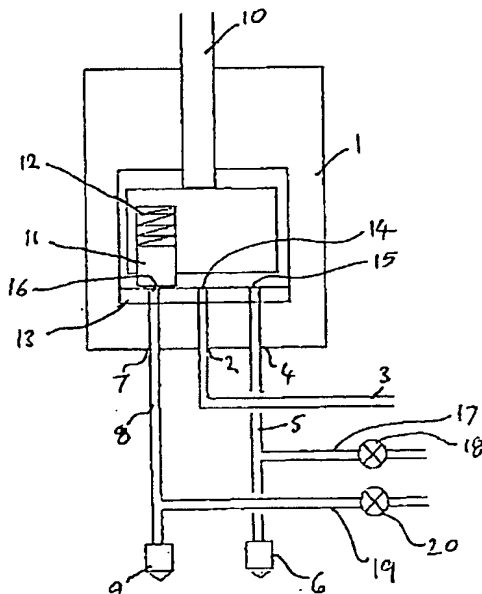
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(54) Title: SWITCHING FLUID FLOW BY DIVERSION



(57) Abstract: A flow of fluid is switched on and off by divert-
ing the flow to an alternative path. In a preferred application an
abrasive cutting jet, formed by a flow of abrasive slurry fed via
a conduit 5 to a cutting jet nozzle 6, is switched on and off by
diverting the flow at a three way changeover valve 1 to a con-
duit 8 and bypass nozzle 9. Valves 18, 20 control the connection
to of a flow of clean auxiliary water to respective outlet ports
4, 7 of the changeover valve 1 to reduce pressure differentials
during operation of the changeover valve and to provide clean
backflows which hydraulically divert the flow of abrasive slurry
at the changeover valve and allow the changeover valve to open
and close on a clean, largely abrasive-free flow.

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